

TREE DOCTOR TIPS

Boxwood Insects and Mite Pests

HOSTS:

There are three types of insects and mites that attack boxwoods:

Boxwood psyllid: A 1/8-inch sucking insect that resembles a cicada. The Boxwood psyllid prefers the English or common boxwood (*Buxus sempervirens* ‘Suffruticosa’) as its host.

Boxwood leafminer: The Boxwood leafminer is the most common and the most damaging of the three pests that attack boxwoods. There is one generation per year and it prefers the American boxwood (*Buxus sempervirens* ‘Arborescens’). *Buxus sempervirens* cultivars, ‘Suffruticosa,’ ‘Pendula’ and ‘Argenteo-variegata’ are not damaged as frequently as the cultivar, ‘Arborescens.’

Boxwood spider mites: Boxwood spider mites overwinter as eggs. These mites will tend to feed solely on European, common and English boxwoods.

BIOLOGY AND SYMPTOMS:

Boxwood psyllid: These insects overwinter as eggs inserted in the boxwood’s buds. The nymph, the psyllid’s immature stage, may start feeding through the egg in late fall through late May.

As they grow, the nymphs produce a white waxy coating and can be found pressed against the inside area of the cupped leaf. There is only one generation per year.

Boxwood leafminer: The adult is a delicate, light orange-colored midge (fly). It overwinters in the leaf as a pupa. In spring, pupae can be seen sticking partially out of the leaf’s underside around the time native dogwoods are flowering (early May in central North Carolina).

When adults emerge in a few days, they will insert more eggs into the undersides of the afflicted boxwood leaves. The orange larvae maggots feed inside the leaf for the rest of the year. Damage starts with slight blisters, then progresses to yellow discoloration, then to brown. Premature defoliation and twig dieback can occur.

Boxwood spider mites: These mites feed on specific boxwoods and will not move onto other plant species. They prefer to feed in cool weather and will be active in late winter. They have eight generations per year.

MANAGEMENT:

Boxwood psyllid: Damage is usually aesthetic. However, large numbers of boxwood psyllid can cause defoliation. Shearing and pruning will remove the injured foliage.

For all three boxwood pests: It’s recommended that a Plant Health Care technician inspect the diseased boxwoods to determine the best strategy. In early spring, one foliar application with a new product may control all three pests. Soil injections of an insecticide with Imidacloprid will help reduce leafminers and psyllids, but not spider mites. Repeated applications may be needed to reduce spider mites with either management technique.



FIGURE A. BOXWOOD PSYLLID HAS DISTORTED THE LEAVES ON THE SHOOT ON THE LEFT; SHOOT ON THE RIGHT HAS NORMAL LEAF DEVELOPMENT



FIGURE B. THIS BOXWOOD SPIDER MITE DAMAGE HAS BEEN CAUSED BY MITES SUCKING CHLOROPHYLL FROM THE LEAF

*The scientists at **The Davey Institute** laboratory and research facility support our arborists and technicians in diagnosing and prescribing based on the latest arboricultural science. For specific treatment and application details, your arborist may consult **The Davey Institute PHC Handbook**.*

